

Page 16, line 5: replace "Such algorithms" with -- Algorithms --.

Page 17, line 13 replace "is" with -- may be --.

Page 17, line 16 replace "one understand" with -- one will understand, --.

Page 18, line 25: following "prior", insert -- art --.

Page 18, line 32: delete "discreetly and".

Page 21, line 7 replace " 'holy cow' when" with -- "holy cow"; when --.

Page 22, line 3: delete first occurrence of "and".

IN THE CLAIMS

Please amend the claims as follows:

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1. (AMENDED) Apparatus for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size or perspective of said selected portion, said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate signals corresponding to an image viewed by said camera means, said signal causing said image to be displayed by said video image display [which size is strictly a function of the TV camera, said TV camera operable at various different perspectives employed to create said display], comprising:

means for selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to changes in size and perspective.

means responsive to said video [signal] image display signals for recognizing said selected portion of said display,

means for generating video signals indicative of said desired indicia to be substituted,

means responsive to said video signals indicative of said desired indicia [signals] and said video [signal] image display signals for inserting a video representation of said indicia into said video image display at said preselected portion.

10. (AMENDED) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display [on a frame-to-frame basis] and independent of the size or perspective of said selected portion [on a frame-to-frame basis], said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate signals corresponding to an image viewed by said camera means, said signal causing said image to be displayed by said video image display [which size is a function of the TV camera perspective employed to create said display], comprising the steps of:

selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to changes in size and perspective.

recognizing said selected portion of said display [on a frame-to-frame basis] and independent of the size or perspective of said portion with respect to said display,

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generating a video image of said desired indicia, and
inserting said image of said desired indicia within said recognized portion of
said display on a [frame-to-frame basis].

Please insert the following new claims:

21. (NEW) Apparatus for altering a video image display to provide a
substituted display of desired indicia within a preselected portion of said video image display
and independent of the size of said selected portion which size is strictly a function of the
TV camera, said TV camera operable at various different perspectives employed to create
said display, comprising:

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P1 means for selecting said portion of said display to be substituted,
L means responsive to said video signal display for recognizing said selected
portion of said display,

P1 means for generating video signals indicative of said desired indicia to be
substituted,

P1 means responsive to said desired indicia signals and said video signal for
inserting said indicia into said video image display at said preselected portion, and

P1 audio processing means responsive to audio signals associated with the
televised scene comprising said video image display to alter said substituted display portion
according to said audio signals.

22. (NEW) The apparatus according to Claim 21 wherein said display indicia is modulated according to the intensity of said audio signals, which signals exceed a given threshold.

23. (NEW) Apparatus for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size of said selected portion which size is strictly a function of the TV camera, said TV camera operable at various different perspectives employed to create said display, comprising:

p1 means for selecting said portion of said display to be substituted,

means responsive to said video signal display for recognizing said selected portion of said display, including pattern recognition means responsive to said selected portion of said display to provide signals indicative of said selected portion independent of the size of said portion with respect to said display, and wherein said pattern recognition means includes means for performing a pyramid algorithm,

p1 means for generating video signals indicative of said desired indicia to be substituted,

p1 means responsive to said desired indicia signals and said video signal for inserting said indicia into said video image display at said preselected portion.

24. (NEW) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display

on a frame-to-frame basis and independent of the size of said selected portion on a frame-to-frame basis which size is a function of the TV camera perspective employed to create said display, comprising the steps of:

P | selecting said portion of said display to be substituted,

L recognizing said selected portion of said display on a frame-to-frame basis and independent of the size of said portion with respect to said display,

P | generating a video image of said desired indicia,

L inserting said image of said desired indicia within said recognized portion of said display on a frame-to-frame basis, and

P | detecting the intensity of audio signals emanating from the televised scene comprising said video image display and altering the inserted image according to said detected audio.

25. (NEW) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display on a frame-to-frame basis and independent of the size of said selected portion on a frame-to-frame basis, which size is a function of the TV camera perspective employed to create said display, comprising the steps of:

P | selecting said portion of said display to be substituted,

L recognizing said selected portion of said display on a frame-to-frame basis and independent of the size of said portion with respect to said display, whereby a pattern recognition algorithm is applied to said selected portion and wherein said algorithm is a

pyramid algorithm capable of processing said displayed image enabling recognition of said selected portion independent of the size, location or orientation of the same with respect to said display on a frame-to-frame basis,

PI generating a video image of said desired indicia, and

L inserting said image of said desired indicia within said recognized portion of said display on a frame-to-frame basis.

26. (NEW) The method according to claim 25 where said algorithm is the Burt Pyramid Algorithm.

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27. (NEW) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display on a frame-to-frame basis and independent of the size of said selected portion on a frame-to-frame basis which size is a function of the TV camera perspective employed to create said display, comprising the steps of:

PI selecting said portion of said display to be substituted,

L recognizing said selected portion of said display on a frame-to-frame basis and independent of the size of said portion with respect to said display,

PI generating a video image of said desired indicia,

L inserting said image of said desired indicia within said recognized portion of said display on a frame-to-frame basis, and

P1 modulating said inserted video image according to the sound intensity emanating from the televised scene comprising said video image display.

28. (NEW) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display on a frame-to-frame basis and independent of the size of said selected portion on a frame-to-frame basis which size is a function of the TV camera perspective employed to create said display, comprising the steps of:

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P1 selecting said portion of said display to be substituted,
L recognizing said selected portion of said display on a frame-to-frame basis and independent of the size of said portion with respect to said display,

P1 generating a video image of said desired indicia,
L inserting said image of said desired indicia within said recognized portion of said display on a frame-to-frame basis, and

P1 detecting motion in said display during a frame and inhibiting said video image of said desired indicia into said display according to said detected motion.

29. (NEW) Apparatus for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size of said selected portion which size is strictly a function of the TV camera, said TV camera operable at various different perspectives employed to create said display, comprising:

P1 means for selecting said portion of said display to be substituted,

L means responsive to said video signal display for recognizing said selected portion of said display, including pattern recognition means responsive to said selected portion of said display to provide signals indicative of said selected portion independent of the size of said portion with respect to said display,

P1 means for generating video signals indicative of said desired indicia to be substituted,

P1 means responsive to said desired indicia signals and said video signal for inserting said indicia into said video image display at said preselected portion.

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30. (NEW) Apparatus for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size or perspective of said selected portion, said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate video signals corresponding to an image viewed by said camera means, said video signal causing said image to be displayed by said video image display, comprising:

P1 means for selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to changes in size and perspective at the frame rate of said video signal,

P1 means responsive to video attributes outside the perimeter of said selected portion of said display for recognizing said selected portion of said display,

P1 means for generating video signals indicative of said desired indicia to be substituted,

P1 means responsive to said video signals indicative of said desired indicia and said video image display signals for inserting a video representation of said indicia into said video image display.

31. (NEW) A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size or perspective of said selected portion, said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate video signals corresponding to an image viewed by said camera means, said video signal causing said image to be displayed by said video image display, comprising the steps of:

P1 selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to changes in size and perspective at the frame rate of said video signal.

P1 recognizing said selected portion of said display at said frame rate and independent of the size or perspective of said portion with respect to said display,

P1 generating a video image of said desired indicia, and

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P1 inserting said image of said desired indicia into an area of said display determined with respect to said recognized portion at the frame rate of said video signal.

32. (NEW) Apparatus for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size or perspective of said selected portion, said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate video signals corresponding to an image viewed by said camera means, said video signal causing said image to be displayed by said video image display, comprising:

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P1 means for selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to random variation in size and perspective from image to image,

P1 means responsive to video attributes outside the perimeter of said selected portion of said display for recognizing said selected portion of said display,

P1 means for generating video signals indicative of said desired indicia to be substituted,

P1 means responsive to said video signals indicative of said desired indicia and said video image display signals for inserting a video representation of said indicia into said video image display.

33. ~~(NEW)~~ A method for altering a video image display to provide a substituted display of desired indicia within a preselected portion of said video image display and independent of the size or perspective of said selected portion, said size and perspective of said selected portion varying in accordance with the perspective and range of a video camera means operable to generate video signals corresponding to an image viewed by said camera means, said video signal causing said image to be displayed by said video image display, comprising the steps of:

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p1 selecting said portion of said display to be substituted, said selected portion being indicative of an identifiable segment of said televised image and said identifiable segment being subject to random variation in size and perspective from image to image,

p1 recognizing said selected portion of said display, said recognition being independent of the size or perspective of said portion with respect to said display,

p1 generating a video image of said desired indicia, and

└ inserting said image of said desired indicia into an area of said display determined with respect to said recognized portion.

34. ~~(NEW)~~ The apparatus according to ~~Claim~~ 1 wherein said means responsive to said video image display signals for recognizing said selected portion of said display operates in response to video attributes outside the perimeter of said selected portion of said display.

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35. (NEW) The method according to ~~Claim~~ 10 wherein the step of recognizing said selected portion of said display is responsive to video attributes outside the perimeter of said selected portion of said display.

36. (NEW) The apparatus according to ~~Claim~~ 21 wherein said means responsive to said video image display signals for recognizing said selected portion of said display operates in response to video attributes outside the perimeter of said selected portion of said display.

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37. (NEW) The method according to ~~Claim~~ 24 wherein the step of recognizing said selected portion of said display is responsive to video attributes outside the perimeter of said selected portion of said display.

38. (NEW) The apparatus according to ~~Claim~~ 1 wherein said selected portion comprises an object within said video image display and whereby a path traversed by said object from image to image is highlighted, including use of an enhanced image of said object as said inserted indicia.

39. (NEW) The apparatus according to ~~Claim~~ 1 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said object from image to image is highlighted, including use of a modulated image of said object as said inserted indicia.

40. (NEW) The apparatus according to ~~Claim~~ 23 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said object from image to image is highlighted, including use of an enhanced image of said object as said inserted indicia.

41. (NEW) The apparatus according to ~~Claim~~ 23 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said object from image to image is highlighted, including use of a modulated image of said object as said inserted indicia.

42. (NEW) The method according to ~~Claim~~ 10 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said object, from image to image, is highlighted, including use of a modulated image of said object as said inserted indicia.

43. (NEW) The method according to ~~Claim~~ 10 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said object, from image to image, is highlighted, including use of an enhanced image of said object as said inserted indicia.

44. (NEW) The method according to ~~Claim~~ 25 wherein said selected portion comprises an object within said video image display and whereby the path traversed by said